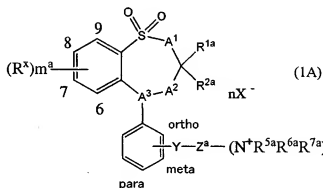


AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A compound represented by the following formula (1A):



wherein,

R^{1a} and R^{2a} may be the same as or different from each other and each represents alkyl group having 1 to 10 carbon atoms, alkenyl group having 2 to 10 carbon atoms or alkynyl group having 2 to 10 carbon atoms;

m^a is an integer of 0 to 4;

R^x represents halogen atom, nitro group, amino group, cyano group, hydroxy group, carboxy group, $-\text{CONH}_2$, $-\text{SO}_3\text{H}$, $-\text{NR}^3\text{R}^4$,

R^3 and R^4 may be the same as or different from each other and each represents alkyl group having 1 to 5 carbon atoms, alkyl group having 1 to 10 carbon atoms, alkenyl group having 2 to 10 carbon atoms or alkynyl group having 2 to 10 carbon atoms;

wherein the alkyl group, the alkenyl group and the alkynyl group may be substituted with one or more groups of phenyl, naphthyl, pyridyl, quinolyl, thienyl, furyl, ~~piperidin~~ piperidyl, pyrrolidyl, morpholyl, cycloalkyl having 3 to 7 carbon atoms, cyano, nitro, hydroxy, oxo, thioxo, carboxy, $-\text{CONH}_2$ and $-\text{SO}_3\text{H}$; one or more methylenes which constitute the alkyl group, the alkenyl group and the alkynyl group may be replaced with any of phenylene, thienylene, furylene, cyclohexylene, cyclopentylene, $-\text{O}-$, $-\text{S}-$, $-\text{CO}_2-$, $-\text{NHCO}-$, $-\text{NR}^{8a}-$, and $-\text{N}^+\text{W}^a-\text{R}^{9a}\text{R}^{10a}-$,

R^{8a} represents alkyl group having 1 to 5 carbon atoms or alkenyl group having 2 to 5 carbon atoms; the alkyl group and the alkenyl group in R^{8a} may be substituted with one or more groups of phenyl, cycloalkyl having 3 to 7 carbon atoms and hydroxyl,

R^{9a} and R^{10a} may be the same as or different from each other and each represents alkyl group having 1 to 5 carbon atoms or alkenyl group having 2 to 5 carbon atoms, and may be substituted with one or more groups of phenyl, cycloalkyl having 3 to 7 carbon atoms and hydroxyl, and

W^{a-} represents a counteranion;

the combination of (A^1 , A^2 , A^3) represents (CH_2 , $\text{CH}(\text{OH})$, CH); Y represents any of $-\text{NHCS}-$, $-\text{NHCSNH}-$ or $-\text{NHCSO}-$, wherein $-\text{NH}$ of $-\text{NHCS}-$ represents a bond which binds to the adjacent benzene ring and $\text{CS}-$ represents a bond which binds to the adjacent Z^a , and $-\text{NH}$ of $-\text{NHCSO}-$ represents a bond which binds to the adjacent

benzene ring and CSO- represents a bond which binds to the adjacent Z^a;

Z^a-(N^{5a}R^{6a}R^{7a})_n represents an alkyl group or alkenyl group having 2 to 10 carbon atoms which is substituted with -N^{5a}R^{6a}R^{7a}, the number of the substituents being n; wherein one or more methylenes which constitute Z^a may be replaced with any of phenylene which may have a substituent or -O-; wherein the substituent(s) in the phenylene which may have the substituent are 1 to 4 substituents selected from the group consisting of alkyl groups having 1 to 5 carbon atoms, alkoxy groups having 1 to 5 carbon atoms, nitro group, halogen atoms, trifluoromethyl group and -CH₂N^{5a}R^{6a}R^{7a}; wherein the substituents may be the same as or different from each other; and wherein n is an integer of 1 or 2; and

each of N^{5a}R^{6a}R^{7a} is independently any of the following I), II) or III):

I) R^{5a}, R^{6a} and R^{7a} may be the same as or different from one another, and each represents alkyl group having 1 to 10 carbon atoms, alkenyl group having 2 to 10 carbon atoms or alkynyl group having 2 to 10 carbon atoms; wherein the alkyl group, the alkenyl group and the alkynyl group may be substituted with one or more groups of phenyl, naphthyl, pyridyl, quinolyl, thienyl, furyl, ~~piperidyl~~ piperidyl, pyrrolidyl, morpholyl, cycloalkyl having 3 to 7 carbon atoms, cyano, nitro, hydroxy, oxo, thioxo, carboxy, -CONH₂ and -SO₃H; and wherein one or more

methylenes which constitute the alkyl group, the alkenyl group and the alkynyl group may be replaced with any of phenylene, thienylene, furylene, cyclohexylene, cyclopentylene, -O-, -S-, -CO₂-, -NHCO-, -NR⁹-, and -N⁺W R⁹R¹⁰-,

R⁸ represents alkyl group having 1 to 5 carbon atoms or alkenyl group having 2 to 5 carbon atoms, the alkyl group and the alkenyl group in R⁸ may be substituted with one or more groups of phenyl, cycloalkyl having 3 to 7 carbon atoms and hydroxyl,

R⁹ and R¹⁰ may be the same as or different from each other and each represents alkyl group having 1 to 5 carbon atoms or alkenyl group having 2 to 5 carbon atoms, and may be substituted with one or more groups of phenyl, cycloalkyl having 3 to 7 carbon atoms and hydroxyl, and

W⁻ represents a counteranion;

II) N⁺R^{5a}R^{6a}R^{7a} represents a monocyclo or bicyclo ring formed of 4 to 9 carbon atoms in addition to the ammonium nitrogen atom, with a proviso that a position of binding to Z^a is the ammonium nitrogen atom; wherein, in the monocyclo and bicyclo rings, one of the carbon atoms which constitutes the ring may be replaced with any of oxygen, nitrogen or sulfur atom; and the monocyclo and bicyclo rings may be substituted with one or more groups of hydroxy, oxo, thioxo, cyano, phenyl, naphthyl, thienyl, pyridyl, cycloalkyl having 3 to 7 carbon atoms, carboxy, -CONH₂, -SO₃H and -R¹¹,

R¹¹ represents alkyl group having 1 to 8 carbon atoms

or alkenyl group having 2 to 8 carbon atoms, the alkyl group and the alkenyl group in R^{11} may be substituted with one or more groups of phenyl, naphthyl, pyridyl, quinolyl, thienyl, furyl, ~~piperidyl~~ piperidyl, pyrrolidyl, morpholyl, cycloalkyl having 3 to 7 carbon atoms, cyano, nitro, hydroxy, oxo, thioxo, carboxy, $-\text{CONH}_2$ and $-\text{SO}_3\text{H}$; and one or more methylenes which constitute the alkyl group and the alkenyl group may be replaced with any of phenylene, thienylene, furylene, cyclohexylene, cyclopentylene, $-\text{O}-$, $-\text{S}-$, $-\text{CO}_2-$, $-\text{NHCO}-$, $-\text{NR}^8-$, and $-\text{N}^+\text{WR}^9\text{R}^{10}$; R^8 , R^9 , R^{10} and W^- are the same as the above; and the group which is not involved in the formation of the monocyclo ring and the bicyclo ring in R^{5a} , R^{6a} and R^{7a} is the same as the above I); and

III) $\text{N}^+\text{R}^{5a}\text{R}^{6a}\text{R}^{7a}$ represents a pyridinium ring, a quinolinium ring or an isoquinolinium ring with a proviso that a position of binding to Z^b is the ammonium nitrogen atom; wherein the pyridinium ring, the quinolinium ring and the isoquinolinium ring may be substituted with one or more groups of cyano, nitro, phenyl, naphthyl, thienyl, pyridyl, cycloalkyl having 3 to 7 carbon atoms, alkoxy having 1 to 5 carbon atoms, carboxy, $-\text{CONH}_2$, $-\text{SO}_3\text{H}$, halogen, hydroxy, tetrahydropyranyl and $-\text{R}^{12a}$,

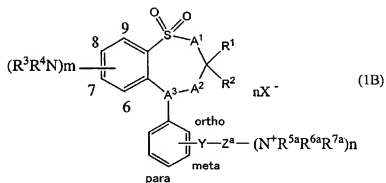
R^{12a} represents alkyl group having 1 to 9 carbon atoms or alkenyl group having 2 to 9 carbon atoms, the alkyl group and the alkenyl group in R^{12a} may be substituted with one or more groups of phenyl, naphthyl, pyridyl, quinolyl, thienyl, furyl, cycloalkyl having 3 to 7 carbon atoms, cyano, nitro, hydroxy,

oxo, thioxo, carboxy, $-\text{CONH}_2$ and $-\text{SO}_3\text{H}$; and one or more methylenes which constitute the alkyl group and the alkenyl group may be replaced with any of phenylene, thienylene, furylene, cyclohexylene, cyclopentylene, $-\text{S}-$, $-\text{O}-$, $-\text{CO}_2-$, $-\text{NHCO}-$, $-\text{NR}^0-$, and $-\text{N}^+\text{WR}^9\text{R}^{10}-$;

R^8 , R^9 , R^{10} and W^- are the same as the above; and

X^- represents a counteranion.

2. (currently amended) A compound represented by the following formula (1B):



wherein,

R^1 and R^2 may be the same as or different from each other and each represents alkyl group having 1 to 10 carbon atoms;

m is an integer of 1 or 2;

R^3 and R^4 may be the same as or different from each other and each represents alkyl group having 1 to 5 carbon atoms; the combination of (A^1 , A^2 , A^3) represents (CH_2 , $\text{CH}(\text{OH})$, CH);

Y represents any of $-\text{NHCS}-$, $-\text{NHCSNH}-$ or $-\text{NHCSO}-$,

wherein -NH of -NHCS- represents a bond which binds to the adjacent benzene ring and CS- represents a bond which binds to the adjacent Z^a , and -NH of -NHCSO- represents a bond which binds to the adjacent benzene ring and CSO- represents a bond which binds to the adjacent Z^a ;

$Z^a-(N^+R^{5a}R^{6a}R^{7a})_n$ represents an alkyl group or alkenyl group having 2 to 10 carbon atoms which is substituted with $-N^+R^{5a}R^{6a}R^{7a}$, the number of the substituents being n; wherein one or more methylenes which constitute Z^a may be replaced with any of phenylene which may have a substituent or -O-; wherein the substituent(s) in the phenylene which may have the substituent are 1 to 4 substituents selected from the group consisting of alkyl groups having 1 to 5 carbon atoms, alkoxy groups having 1 to 5 carbon atoms, nitro group, halogen atoms, trifluoromethyl group and $-\text{CH}_2N^+R^{5a}R^{6a}R^{7a}$; wherein the substituents may be the same as or different from each other; and wherein n is an integer of 1 or 2; and

each of $N^+R^{5a}R^{6a}R^{7a}$ is independently any of the following I), II) or III):

I) R^{5a} , R^{6a} and R^{7a} may be the same as or different from one another, and each represents alkyl group having 1 to 10 carbon atoms, alkenyl group having 2 to 10 carbon atoms or alkynyl group having 2 to 10 carbon atoms; wherein the alkyl group, the alkenyl group and the alkynyl group may be substituted with one or more groups of phenyl, naphthyl, pyridyl, quinolyl,

thienyl, furyl, ~~piperidyl~~ piperidyl, pyrrolidyl, morpholyl, cycloalkyl having 3 to 7 carbon atoms, cyano, nitro, hydroxy, oxo, thioxo, carboxy, $-\text{CONH}_2$ and $-\text{SO}_3\text{H}$; and wherein one or more methylenes which constitute the alkyl group, the alkenyl group and the alkynyl group may be replaced with any of phenylene, thienylene, furylene, cyclohexylene, cyclopentylene, $-\text{O}-$, $-\text{S}-$, $-\text{CO}_2-$, $-\text{NHCO}-$, $-\text{NR}^9-$, and $-\text{N}^+\text{W}^9\text{R}^{10}-$,

R^8 represents alkyl group having 1 to 5 carbon atoms or alkenyl group having 2 to 5 carbon atoms, the alkyl group and the alkenyl group in R^8 may be substituted with one or more groups of phenyl, cycloalkyl having 3 to 7 carbon atoms and hydroxyl,

R^9 and R^{10} may be the same as or different from each other and each represents alkyl group having 1 to 5 carbon atoms or alkenyl group having 2 to 5 carbon atoms, and may be substituted with one or more groups of phenyl, cycloalkyl having 3 to 7 carbon atoms and hydroxyl, and

W^- represents a counteranion;

II) $\text{N}^+\text{R}^{5a}\text{R}^{6a}\text{R}^{7a}$ represents a monocyclo or bicyclo ring formed of 4 to 9 carbon atoms in addition to the ammonium nitrogen atom, with a proviso that a position of binding to Z^a is the ammonium nitrogen atom; wherein, in the monocyclo and bicyclo rings, one of the carbon atoms which constitutes the ring may be replaced with any of oxygen, nitrogen or sulfur atom; and the monocyclo and bicyclo rings may be substituted with one or more groups of hydroxy, oxo, thioxo, cyano, phenyl, naphthyl, thienyl,

pyridyl, cycloalkyl having 3 to 7 carbon atoms, carboxy, $-\text{CONH}_2$, $-\text{SO}_3\text{H}$ and $-\text{R}^{11}$,

R^{11} represents alkyl group having 1 to 8 carbon atoms or alkenyl group having 2 to 8 carbon atoms, the alkyl group and the alkenyl group in R^{11} may be substituted with one or more groups of phenyl, naphthyl, pyridyl, quinolyl, thienyl, furyl, ~~piperidin~~ piperidyl, pyrrolidyl, morpholyl, cycloalkyl having 3 to 7 carbon atoms, cyano, nitro, hydroxy, oxo, thioxo, carboxy, $-\text{CONH}_2$ and $-\text{SO}_3\text{H}$; and one or more methylenes which constitute the alkyl group and the alkenyl group may be replaced with any of phenylene, thienylene, furylene, cyclohexylene, cyclopentylene, $-\text{O}-$, $-\text{S}-$, $-\text{CO}_2-$, $-\text{NHCO}-$, $-\text{NR}^8-$, and $-\text{N}^+\text{WR}^9\text{R}^{10}$; R^8 , R^9 , R^{10} and W^- are the same as the above; and the group which is not involved in the formation of the monocyclo ring and the bicyclo ring in R^{5a} , R^{6a} and R^{7a} is the same as the above I); and

III) $\text{N}^+\text{R}^{5a}\text{R}^{6a}\text{R}^{7a}$ represents a pyridinium ring, a quinolinium ring or an isoquinolinium ring with a proviso that a position of binding to Z^8 is the ammonium nitrogen atom; wherein the pyridinium ring, the quinolinium ring and the isoquinolinium ring may be substituted with one or more groups of cyano, nitro, phenyl, naphthyl, thienyl, pyridyl, cycloalkyl having 3 to 7 carbon atoms, alkoxy having 1 to 5 carbon atoms, carboxy, $-\text{CONH}_2$, $-\text{SO}_3\text{H}$, halogen, hydroxy, tetrahydropyranyl and $-\text{R}^{12a}$,

R^{12a} represents alkyl group having 1 to 9 carbon atoms or alkenyl group having 2 to 9 carbon atoms, the alkyl group and

the alkenyl group in R^{12a} may be substituted with one or more groups of phenyl, naphthyl, pyridyl, quinolyl, thienyl, furyl, cycloalkyl having 3 to 7 carbon atoms, cyano, nitro, hydroxy, oxo, thioxo, carboxy, $-\text{CONH}_2$ and $-\text{SO}_3\text{H}$; and one or more methylenes which constitute the alkyl group and the alkenyl group may be replaced with any of phenylene, thienylene, furylene, cyclohexylene, cyclopentylene, $-\text{S}-$, $-\text{O}-$, $-\text{CO}_2-$, $-\text{NHCO}-$, $-\text{NR}^8-$, and $-\text{N}^+\text{W}^-\text{R}^9\text{R}^{10}-$;

R^8 , R^9 , R^{10} and W^- are the same as the above; and

X^- represents a counteranion.

3-9. (canceled)

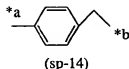
10. (previously presented) A pharmaceutical composition containing the compound according to claim 1 as an active component.

11-21. (canceled)

22. (previously presented) A pharmaceutical composition containing the compound according to claim 2 as an active component.

23-40. (canceled)

41. (previously presented) The compound according to claim 2 wherein Y represents -NHCSNH- at meta position, and Z^a represents the following formula (sp-14):



wherein *a binds to Y and *b binds to N^{5a}R^{6a}R^{7a} in the formula (1B).

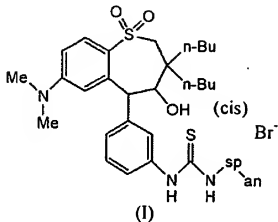
42. (previously presented) The compound according to claim 41 wherein R¹ and R² may be the same as or different from each other and each represents straight alkyl groups having 2 to 6 carbon atoms, and wherein (R³R⁴N)_m represents any of dimethylamino group substituted at position 7, diethylamino group substituted at position 7, ethylmethylamino group substituted at position 7, dimethylamino group substituted at position 9 and dimethylamino groups substituted at two positions 7 and 9.

43. (previously presented) The compound according to claim 42 wherein (R³R⁴N)_m represents any of dimethylamino group substituted at position 7, diethylamino group substituted at position 7 or ethylmethylamino group substituted at position 7, and wherein N^{5a}R^{6a}R^{7a} represents a group selected from the group consisting of:

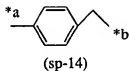
4-t-butylpyridinium;

1,4-diazabicyclo[2.2.2]octanium.

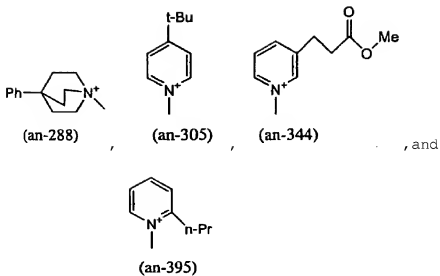
the following formula (I):



wherein (sp) is the following formula (sp-14)



(an) is selected from the group consisting of:



45. (previously presented) The compound according to claim 44 wherein (sp) is the formula (sp-14), and (an) is the formula (an-288).

46-48. (canceled)

49. (previously presented) A pharmaceutical composition containing the compound according to claim 41 as an active component.

50-51. (canceled)

52. (previously presented) A pharmaceutical composition containing the compound according to claim 42 as an active component.

53-54. (canceled)

55. (previously presented) A pharmaceutical composition containing the compound according to claim 43 as an active component.

56-57. (canceled)

58. (previously presented) A pharmaceutical composition containing the compound according to claim 44 as an active component.

59-60. (canceled)

61. (previously presented) A pharmaceutical composition containing the compound according to claim 45 as an active component.

62-72. (canceled)

73. (new) A method of lowering cholesterol, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 1 as an active component.

74. (new) A method for treating or preventing any of hyperlipemia, arteriosclerosis or syndrome X, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 1 as an active component.

75. (new) A method of lowering cholesterol, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 2 as an active component.

76. (new) A method for treating or preventing any of hyperlipemia, arteriosclerosis or syndrome X, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 2 as an active component.

77. (new) A method of lowering cholesterol, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 41 as an active component.

78. (new) A method for treating or preventing any of hyperlipemia, arteriosclerosis or syndrome X, comprising administering to a patient in need thereof an effective amount of

a pharmaceutical composition containing the compound according to claim 41 as an active component.

79. (new) A method of lowering cholesterol, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 42 as an active component.

80. (new) A method for treating or preventing any of hyperlipemia, arteriosclerosis or syndrome X, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 42 as an active component.

81. (new) A method of lowering cholesterol, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 43 as an active component.

82. (new) A method for treating or preventing any of hyperlipemia, arteriosclerosis or syndrome X, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 43 as an active component.

83. (new) A method of lowering cholesterol, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 44 as an active component.

84. (new) A method for treating or preventing any of hyperlipemia, arteriosclerosis or syndrome X, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 44 as an active component.

85. (new) A method of lowering cholesterol, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 45 as an active component.

86. (new) A method for treating or preventing any of hiperlipemia, arteriosclerosis or syndrome X, comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition containing the compound according to claim 45 as an active component.